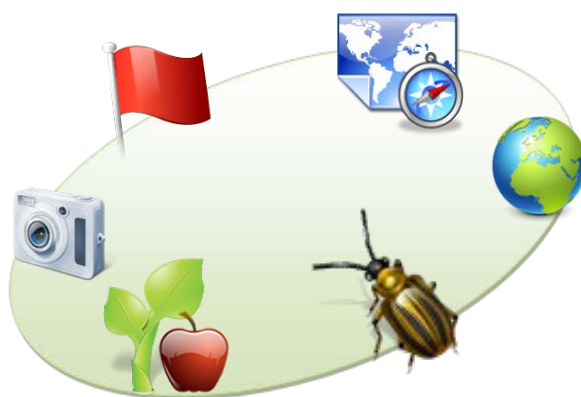


PQR -Plant Quarantine Data Retrieval System

The EPPO database on quarantine pests



User's manual PQR Version 5



EPPO
2014-09-09

Please note that comments are always welcomed to make this guide more user-friendly
pqr@eppo.int

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Introduction

PQR is the EPPO database on quarantine pests. This database has been developed and maintained by the EPPO Secretariat for many years. The development of PQR was initiated in 1984 and the first database appeared in 1990. Several versions of PQR were distributed from 1991 to 2007 to EPPO member countries on different computer media (disks, CDs). In September 2011, a new interface (PQR version 5.0) with updated information was released on the EPPO website. The EPPO Secretariat considers that this represents a major step towards a full website interface which is currently under development.

PQR give access to data on:

- all the pests of the EPPO A1 and A2 lists and of EU Directive 2000/29, appearing in the EPPO/CABI publication "Quarantine Pests for Europe" (2nd edition)
- pests added to these lists since that publication
- pests of the EPPO Alert List
- plants of the EPPO List of invasive alien plants
- many other quarantine pests and invasive plants of interest to other regions of the world (data obtained from FAO, CABI or from other RPPOs).

For each pest, it is possible to obtain lists of host plants, commodities able to act as pathways in international trade, details of geographical distribution with maps, and pictures. Conversely, it is also possible to interrogate the database to obtain specific lists of pests, by stipulating the host species, the commodity, and the countries of interest. PQR contains general nomenclatural and taxonomic details on pests and hosts.

What's NEW in PQR?

- **New interface:** a completely new interface has been designed to facilitate searches in the database. PQR can now be updated in real-time, and as soon as new information has been included, users are automatically asked to upgrade the system.
- **Updated information:** all new information collected by the EPPO Secretariat since the release of the previous version (PQR version 4.7 in 2007) has been included (i.e. data published in the EPPO Reporting Service since 2007 or obtained from CABI maps). In addition, all content of the 'EPPO Plant Protection Thesaurus' (EPPT - pest and plant names, EPPO codes) can be accessed in PQR.
- **Dynamic maps:** new maps showing the world distribution of a pest (zoomable, printable, downloadable). By double-clicking on a country, you can read more details about the geographical record. When the distribution of a pest changes, the map is automatically updated.
- **Official pest status:** when NPPOs have provided an official pest status (in the terms of ISPM 8), it is displayed in a text field.
- **Active links to the EPPO Reporting Service:** when a Reporting Service article is quoted to describe the situation of a pest in a given country, the full article can be accessed by clicking on these links.
- **Lists of host plants and lists of geographical distribution** can be **printed** and **exported** in different formats (Word, Excel, html, pdf, jpeg).
- **Pictures:** when available, photos of pests and invasive plants can be viewed in PQR.

How to cite PQR?

EPPO (20XX) PQR - EPPO database on quarantine pests (available online). <http://www.eppo.int>

Installing PQR and updates

PQR is compatible with Windows XP, Vista, Seven.

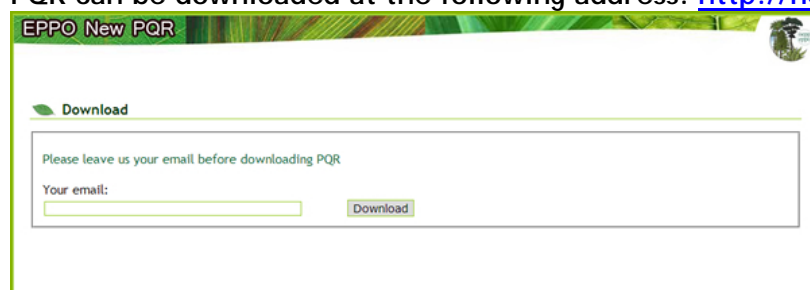
Minimal configuration is as follows: RAM: 512Mo, CPU: > 1Ghz, HD: 100Mo



Installing the database may require administrator rights. If this is the case, choose the 'Installer' type of download (see explanations below).

It is important to ensure that the PQR directory has reading and writing rights.

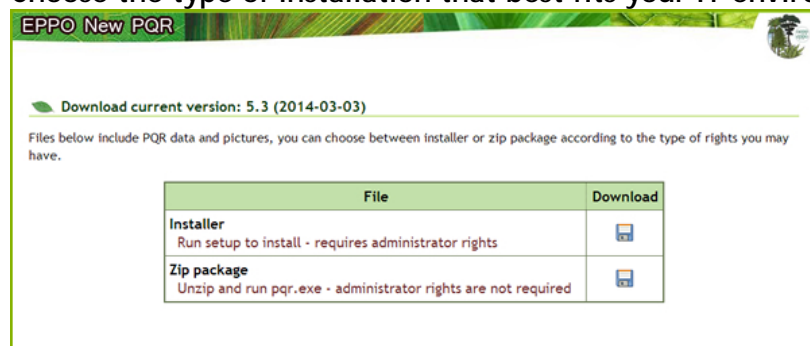
PQR can be downloaded at the following address: <http://newpqr.eppo.int/download.php>





Please leave us your e-mail, so that the EPPO Secretariat is aware of who PQR users are, in order to better answer their needs. Your e-mail address will not be communicated to any other third parties.

Thank you!

Choose the type of installation that best fits your IT environment

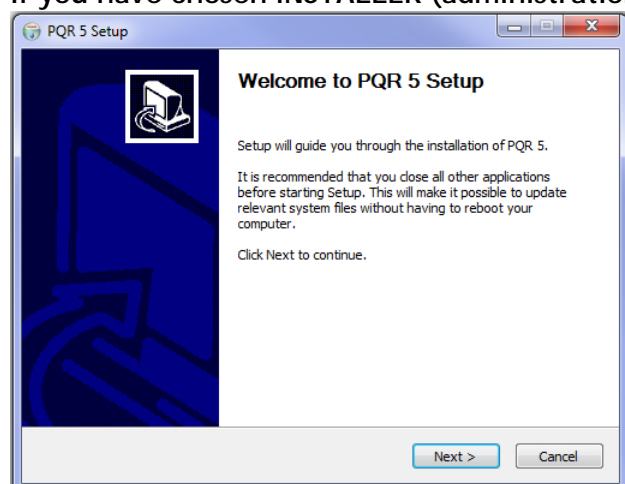


File	Download
Installer Run setup to install - requires administrator rights	
Zip package Unzip and run pqr.exe - administrator rights are not required	

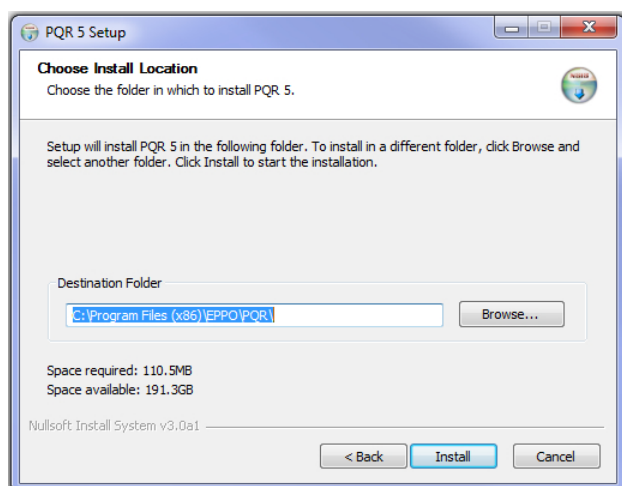
Installer: you need administration rights. Download and follow the installation wizard

Zip package: you do NOT need administration rights. Download, unzip the file and run pqr.exe

If you have chosen INSTALLER (administration rights required): follow the installation Wizard



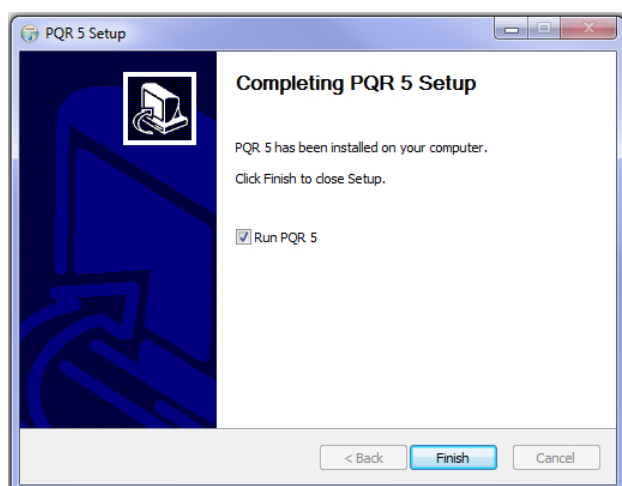
Click next to start the installation



By default the software is installed in the following directory C:\Program Files\EPPO\PQR

(you are recommended to use the directory that is automatically suggested).

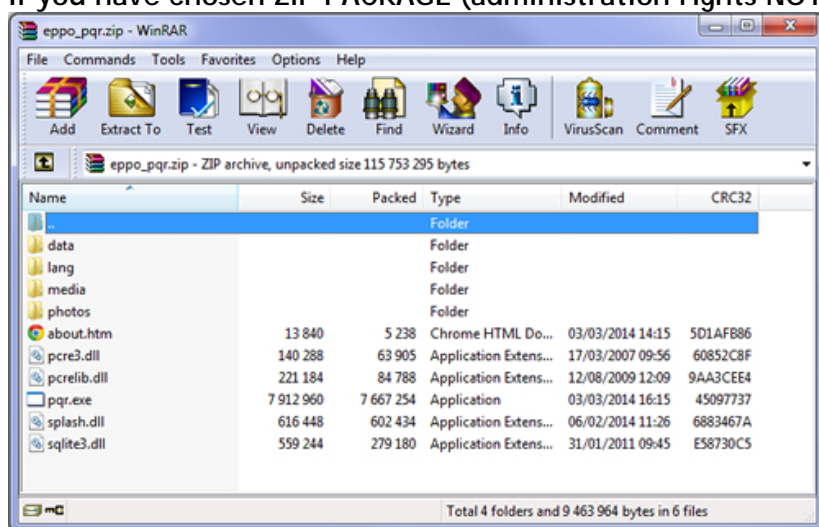
Run the installation by clicking 'Next' at each step.



Click the 'Finish' button: this will launch PQR. A program's shortcut will be added in the Start Menu folder, as well as an icon on your computer desktop.



If you have chosen ZIP PACKAGE (administration rights NOT required)



Download the file (eppo_pqr.zip), unzip and run pqr.exe.

This will launch PQR. A program's shortcut will be added in the Start Menu folder, as well as an icon on your computer desktop.



Updates


- Automatic updates (set by default)

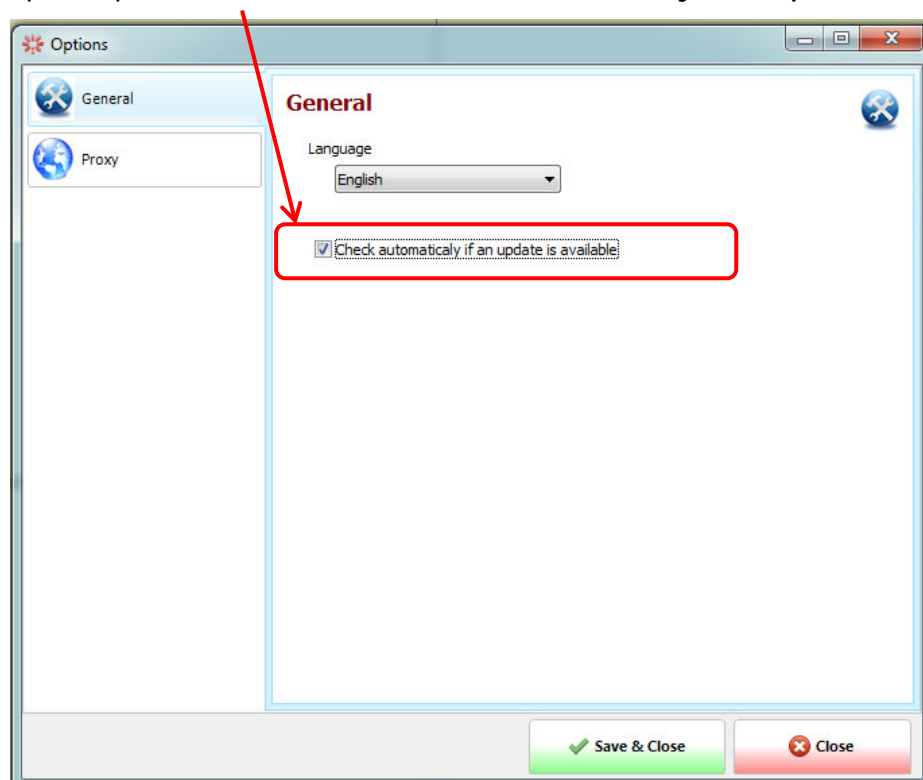
Automatic updates are set by default within PQR. This means that whenever an update of the database has been made (software or data), a text box offering an automatic update will appear when launching PQR.

If you want to upgrade PQR, click on the left-hand side button to download the new update. If not, this can be done later (click on 'remind me later').



- How to disable the automatic updates?

Automatic updates of PQR can be disabled. Click on the button  (top bar of PQR) and in the options panel **untick** the box 'Check automatically if an update is available', save and close.










View Asian fonts (only for users working with Windows XP)

PQR contains common names in different languages including Japanese for some organisms (see example below). For users working with Windows XP, the Japanese characters are sometimes not displayed properly. You can correct this by modifying the language options in the Control Panel of your computer.

EPPO Code : DROSSU

Preferred name : *Drosophila suzukii* (Matsumura)

Common names

-  Kirschessigfliege [DE]
-  cherry drosophila [EN]
-  spotted-wing drosophila [EN_us]
-  drosófila de ala manchada [ES]
-  drosophile du cerisier [FR]
-  オウトウショウジョウバエ [JA]
-  outôshojobae [JA]

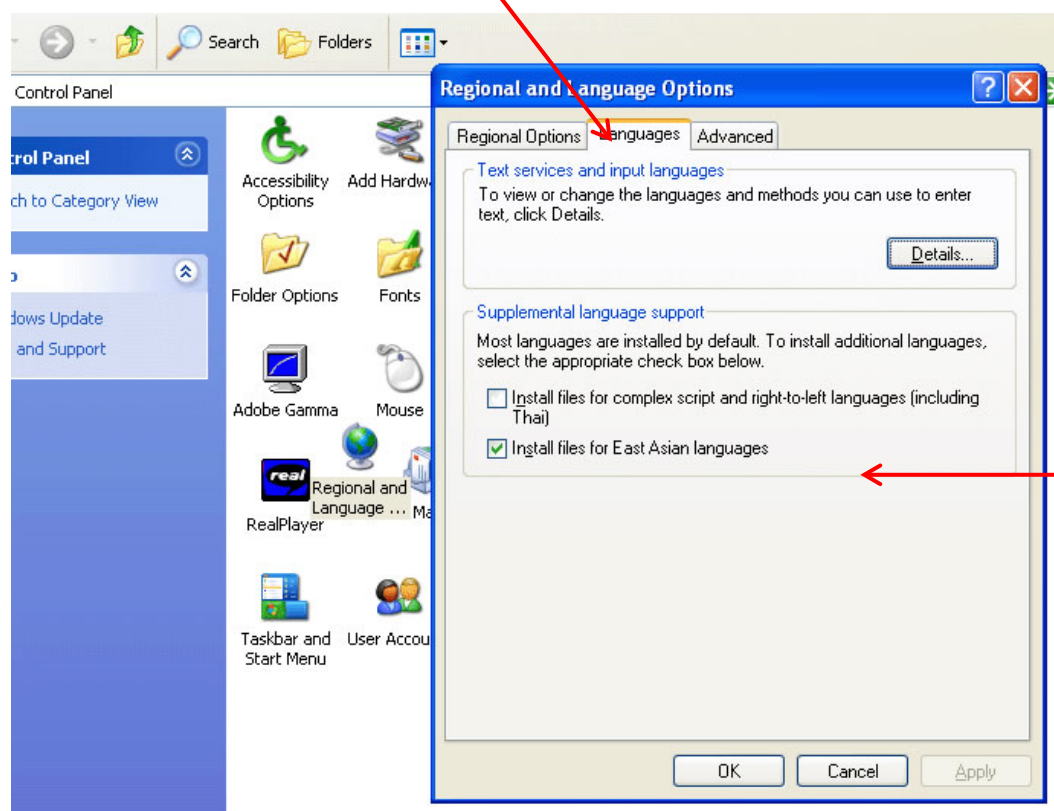
Open the Windows Control panel



Open the Regional and Language options




Open the tab 'Languages' and tick the box 'Install files for East Asian languages'

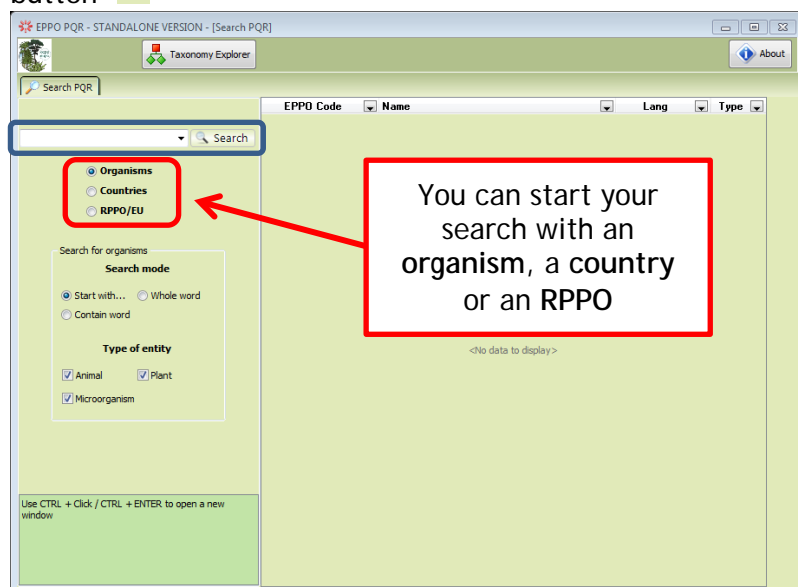


Searching PQR (organisms/countries/RPPOs)


PQR can be searched for 3 different types of information (highlighted in the screen capture below in the red rectangle):

- Organisms (pests, pathogens, plants)
- Countries
- RPPO/EU (Regional Plant Protection Organizations and the European Union)

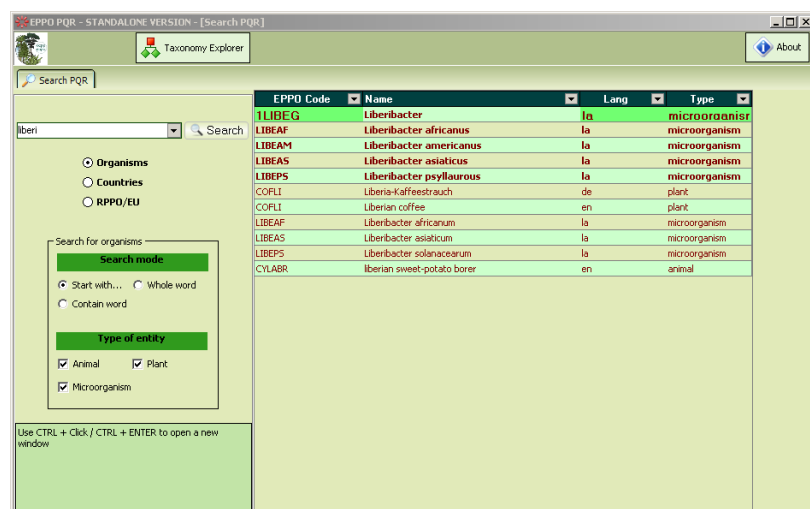
By default, the search for organisms is set up, but you may simply change it by clicking on the 'radio button' 



Search for organism data

Type the name or the EPPO code of the organism you are looking for in the search field (circled in blue in the screen capture above), and click on the 'Search' button 


A minimum of 3 characters should be entered to start the search engine. A list of organisms whose names (or EPPO code) fit your search will appear on the right part of the screen.



The different columns correspond to:

- EPPO Codes
- Names: scientific and common names
- Lang: language of the displayed names (e.g. 'en' for English, 'fr' for French, 'de' for German). 'la' stands for Latin and is associated with all scientific names (including virus and virus-like organisms for simplification)
- Type: type of organisms (animal, microorganism, plant, taxonomic groups)

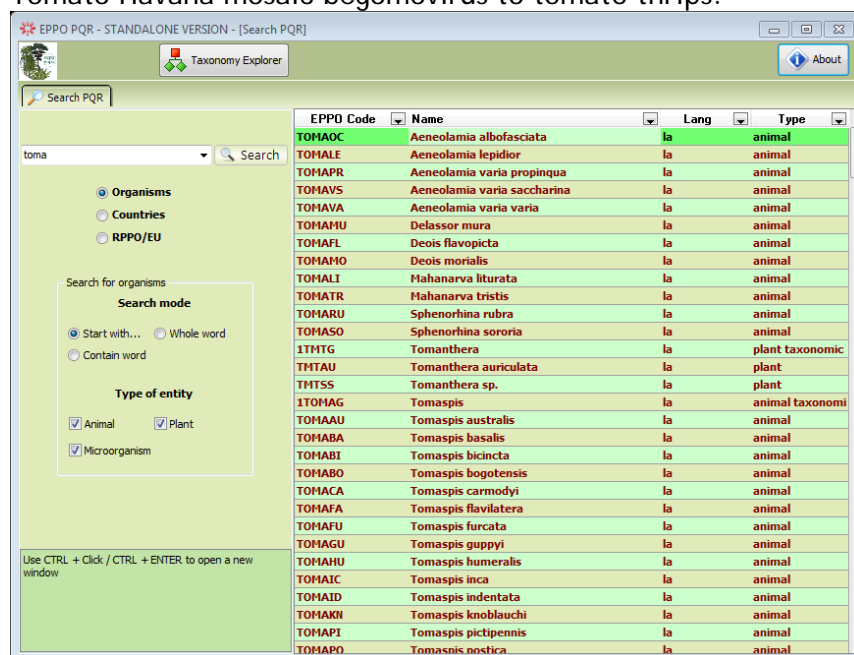
By default, organisms are sorted in alphabetical order of their names, beginning with the preferred scientific names. Preferred scientific names are displayed in bold (synonyms and common names

appear in regular font). You may change the order of names by clicking on the title of the column. You can also apply filters (one or in combination) to restrict the list by clicking on the . In the list, double click on the organism's line to view the specific data that PQR contains for it (see section '[PQR data when searching for organisms](#)' to view the results).

Search modes

By default, the search mode is set up as '*Starting with*'. Once you have typed at least 3 characters, a list of organisms whose name (or EPPO code) begins with these letters will appear on the right part of the screen. You may carry on typing the name of your organism or select it in the list by double clicking on the line.

For example, by searching for all organisms starting with 'tomato', you will get a list of organisms from Tomato Havana mosaic begomovirus to tomato thrips.



EPPO Code	Name	Lang	Type
TOMAOC	Aeneolamia albifasciata	la	animal
TOMALE	Aeneolamia lepidior	la	animal
TOMAPR	Aeneolamia varia propinqua	la	animal
TOMAVS	Aeneolamia varia saccharina	la	animal
TOMAVA	Aeneolamia varia varia	la	animal
TOMAFU	Delassor mura	la	animal
TOMAFI	Deois flavopicta	la	animal
TOMAFI	Deois morialis	la	animal
TOMALI	Mahanarva liturata	la	animal
TOMATR	Mahanarva tristis	la	animal
TOMARU	Sphenorhina rubra	la	animal
TOMASO	Sphenorhina sororia	la	animal
1TMTG	Tomanthera	la	plant taxonomic
1TMTAU	Tomanthera auriculata	la	plant
1TMTSS	Tomanthera sp.	la	plant
1TOMAG	Tomaspis	la	animal taxonomic
TOMAAU	Tomaspis australis	la	animal
TOMABA	Tomaspis basalis	la	animal
TOMABI	Tomaspis bicincta	la	animal
TOMABO	Tomaspis bogotensis	la	animal
TOMACA	Tomaspis carmodyi	la	animal
TOMAFI	Tomaspis flavilata	la	animal
TOMAFU	Tomaspis furcata	la	animal
TOMAGU	Tomaspis guppyi	la	animal
TOMAHU	Tomaspis humeralis	la	animal
TOMAIK	Tomaspis inca	la	animal
TOMAIK	Tomaspis indentata	la	animal
TOMAKI	Tomaspis knoblauchii	la	animal
TOMAFI	Tomaspis pictipennis	la	animal
TOMAFI	Tomaspis noshica	la	animal

Other search modes are as follows:

- **Contain word:** this allows you to search any organisms whose name contains this word. For example, by searching for 'tomato' you will obtain a longer list than with 'starting with' as it will include all organisms whose name begins with 'tomato', as well as all names including the chain of characters for 'tomato', such as *Alternaria tomato*, *Discaria tomatou*, anthracnose of tomato or Stomatopoda.
- **Whole word:** this allows you to search organisms whose name is exactly what you have typed. For example, by searching for 'tomato' as a whole word, you will only have tomato as a result.

If you switch between search modes, you have to click again on 'Search' to update your query.

Type of entity

For any search mode, you may restrict your query to a particular type of organism:

- **Animal** covers any animal species, such as insects, mites, nematodes.
- **Microorganism** covers bacteria, phytoplasmas, fungi and fungus-like organisms, virus, viroids and virus-like organisms.
- **Plant** covers all types of plants (cultivated, wild, weeds, invasive).

If you change the type of entity, you have to click again on 'Search' to update your query.


Search for country data

When you select 'countries', the list of all countries (and their ISO code) for which data is available in PQR appears. By default, they are listed in alphabetical order of their name. You may scroll down to visualize the entire list, or sort the list by clicking on the title of the column.

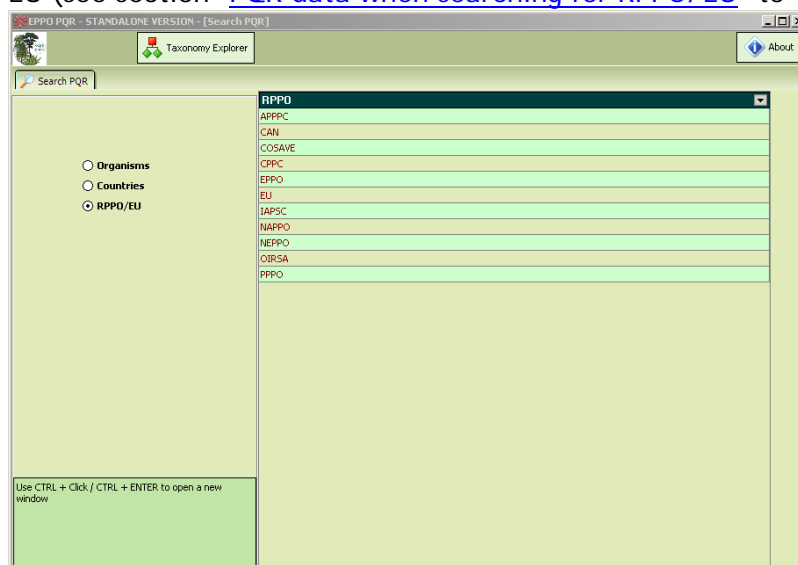
Double click on the country to view the specific data that PQR contains for it (see section '[PQR data when searching for countries](#)' to view the results).



Search for RPPO or EU data

When you select 'RPPO/EU', a list of acronyms for all Regional Plant Protection Organizations and the European Union appears. By default, they are listed in alphabetical order of their name. You may sort the list by clicking on the title of the column. You can also apply one or several filters by clicking on the arrow. 

Double click on the country to access the specific data that is included in PQR for each RPPO or for the EU (see section '[PQR data when searching for RPPO/EU](#)' to view the results).



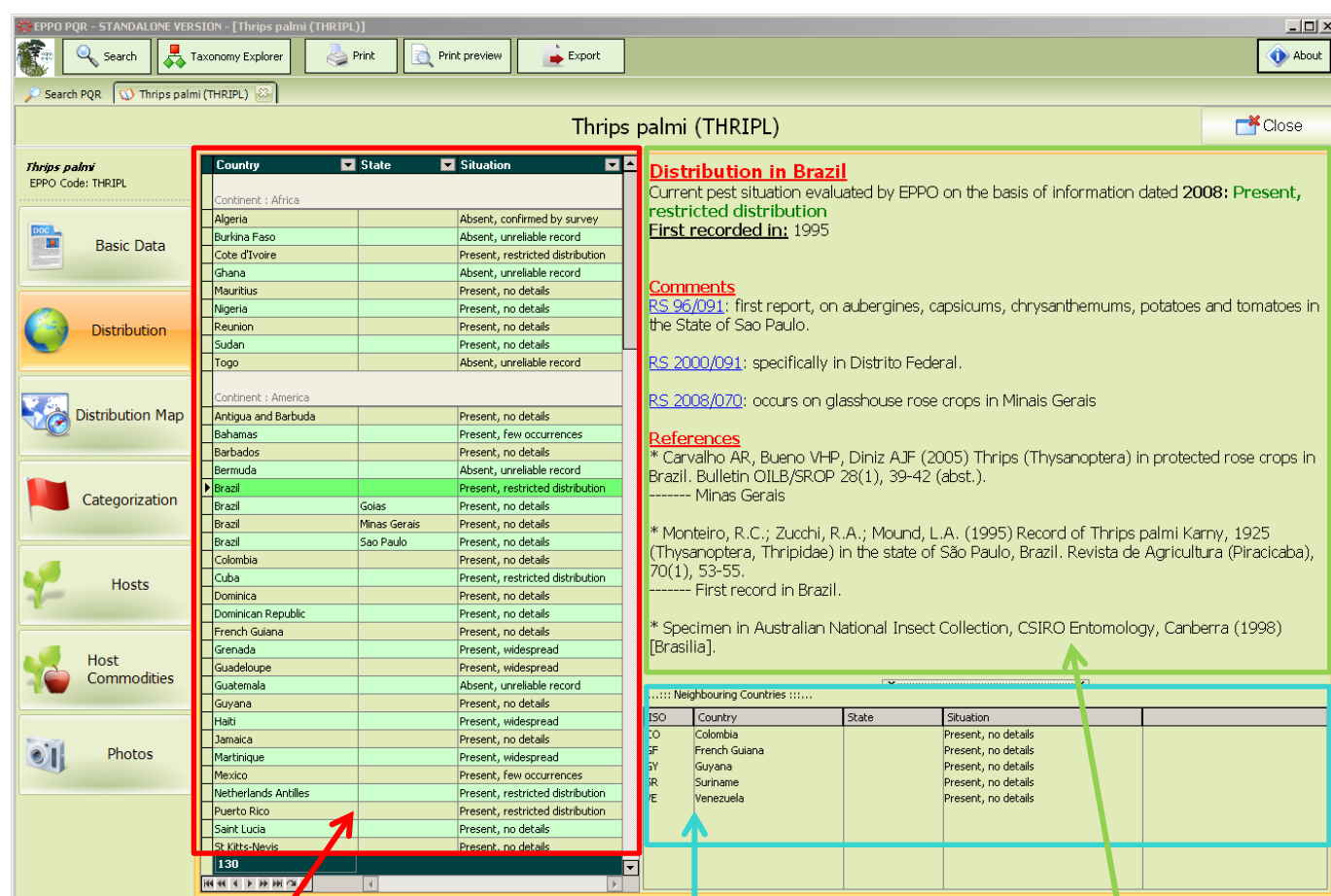
PQR data when searching for organisms (pests or host plants)

As PQR contains information on both the pests and their host plants (all are called 'organisms' in PQR), the database can be searched either by starting with a pest or a plant name. PQR also provides information on plant commodities which may serve as pathways for spreading regulated pests (in particular in trade), this type of information will only be accessible when starting a search with a plant name. Finally, in the particular case of invasive alien plants, these species have been considered as pests, but without any link to host plants. As a consequence, only basic data, geographical distributions, categorization, and pictures are displayed for invasive alien plants in PQR.

Searches related to a pest (including invasive alien plants)



View the geographical distribution of a pest



Thrips palmi (THRIPL)

Distribution in Brazil
Current pest situation evaluated by EPPO on the basis of information dated 2008: **Present, restricted distribution**
First recorded in: 1995

Comments
RS 96/091: first report, on aubergines, capsicums, chrysanthemums, potatoes and tomatoes in the State of Sao Paulo.
RS 2000/091: specifically in Distrito Federal.
RS 2008/070: occurs on glasshouse rose crops in Minas Gerais

References
* Carvalho AR, Bueno VHP, Diniz AJF (2005) Thrips (Thysanoptera) in protected rose crops in Brazil. Bulletin OILB/SROP 28(1), 39-42 (abst.).
----- Minas Gerais
* Monteiro, R.C.; Zucchi, R.A.; Mound, L.A. (1995) Record of Thrips palmi Karny, 1925 (Thysanoptera, Thripidae) in the state of São Paulo, Brazil. Revista de Agricultura (Piracicaba), 70(1), 53-55.
----- First record in Brazil.
* Specimen in Australian National Insect Collection, CSIRO Entomology, Canberra (1998) [Brasilia].

Neighbouring Countries :

ISO	Country	State	Situation
CO	Colombia		Present, no details
GF	French Guiana		Present, no details
GY	Guyana		Present, no details
SR	Suriname		Present, no details
VE	Venezuela		Present, no details

Distribution list: list of countries for which information is available in PQR (presence or absence)

General situation in the countries neighbouring the one which has been selected

Record details for the country which has been selected in the distribution list

Distribution lists (inside the red rectangle on page 10)

In the distribution list you can sort or filter the information obtained.

Country	State	Situation
Indonesia	Sumatra	Present, no details
Japan		Present, widespread
Japan	Honshu	Present, widespread
Japan	Kyushu	Present, widespread

Sort:

In the distribution list, countries are by default sorted by continents and then by alphabetical order. For large countries, mainland comes first and then subnational units. However, by clicking on the small triangle at the top of the list, you can invert the order in each column.

Filter:

In each column, data can be filtered by clicking on the small black arrow. Tick the boxes (as many as you wish). An example is given below on how to display only the countries where the pest has been eradicated.

Country	State	Situation
Continent : Europe		
Netherlands		(All)
United Kingdom		(Custom...)
United Kingdom	England	[Invasive]
		All Present
		All Absent
		<input type="checkbox"/> Absent, confirmed by survey
		<input type="checkbox"/> Absent, intercepted only
		<input type="checkbox"/> Absent, invalid record
		<input type="checkbox"/> Absent, no pest record
		<input checked="" type="checkbox"/> Absent, pest eradicated
		<input type="checkbox"/> Absent, pest no longer present
		<input type="checkbox"/> Absent, unreliable record
		<input type="checkbox"/> Present, few occurrences
		<input type="checkbox"/> Present, no details
		<input type="checkbox"/> Present, restricted distribution

General situation in neighbouring countries (inside the blue rectangle on page 10)

When you are looking at the details for one country (in this example, Brazil), PQR displays the general situation in the neighbouring countries. However, you can disable this option by clicking on the bar.

..... Neighbouring Countries :.....				
ISO	Country	State	Situation	
CO	Colombia		Present, no details	
GF	French Guiana		Present, no details	
GY	Guyana		Present, no details	
SR	Suriname		Present, no details	
VE	Venezuela		Present, no details	

Record details for selected countries (inside the green rectangle on page 10)

Thrips palmi (THRIPL)
Close

Distribution in Netherlands
Current pest situation evaluated by EPPO on the basis of information dated 2009: **Absent, pest eradicated**
First recorded in: 1992
Eradication in: 1996

Pest status declared by NPPO: Absent, pest eradicated, confirmed by survey, intercepted only (2009-12)
From CABI Pest map 480 (1998): Absent, intercepted only

Comments
EPPO Reporting Service 493/03 (1988): Intercepted in chrysanthemums from Japan. See also EPPO Reporting Service 498/06.

RS 93/017: three infestations found in late 1992, probably as a result of imports from GT. Eradication programme immediately imposed.

RS 93/079: all outbreaks now eradicated, with intensive monitoring maintained on areas in vicinity and other high-risk areas importing from GT. First outbreak was observed and eradicated in 1988.

RS 94/107: again found at two locations. RS 95/048: during the 1994 season, found at two firms importing from GT, three other importing firms and 16 customers of these firms. Eradication measures applied and intense surveillance of other firms. Eradication declared successful.

RS 95/156: found again at 3 locations in early spring 1995, only on Ficus. Glasshouses used imported material, but no link to specific imports. All 3 infestations eradicated.

RS 96/193: found again at two locations in 1996, on Ficus benjamina, and eradicated.

RS 97/026: a third outbreak was found in 1996 on Ficus benjamina, and eradicated.

RS 97/216: ongoing survey of Ficus-growing nurseries in 1997 (4932 inspections carried out between January 1996 and September 1997). Also monitoring of outdoor crops and weeds, cut flowers, pot plants and vegetables, auction markets, exported consignments. No T. palmi was found in 1997.

RS 2003/14: isolated outbreak on Serissa in Zuid-Holland in 2001. Eradicated

References
* Halteren, P. van (1995) Bulletin OEPP/EPPO Bulletin 25 (1/2), 1-4.
----- Detected in 1992.

* NPPO of the Netherlands (Fytosanitaire signalering 2007).

* NPPO of the Netherlands (2010) - Annual data on pest status (Fytosignalering 2009).

Details of the geographical record are displayed in three sections

- Distribution data
- Comments
- References

a) Distribution data

Thrips palmi (THRIPL)
Close

Distribution in Netherlands
Current pest situation evaluated by EPPO on the basis of information dated 2009: **Absent, pest eradicated**
First recorded in: 1992
Eradication in: 1996

Pest status declared by NPPO: Absent, pest eradicated, confirmed by survey, intercepted only (2009-12)
From CABI Pest map 480 (1998): Absent, intercepted only

Distribution: as shown in the screen capture above, the distribution of a pest in a specific country is evaluated by the EPPO Secretariat on the basis of the different pieces of information that are available at a given date (which is specified). In order to ensure consistency within the database, a small number of presence/absence categories are being used in PQR. Please note that in this new version of PQR, two new categories have been created to better reflect the distribution of pests. The current distribution categories are as follows:

- Present, no details
- Present, widespread
- Present, restricted distribution
- Present, few occurrences
- Absent, pest no longer present
- Absent, pest eradicated
- Absent, intercepted only
- Absent, invalid record
- Absent, unreliable record
- Absent, no pest record [new category created in PQR version 5]
- Absent, confirmed by survey
- Transient, under eradication [new category created in PQR version 5]

First recorded: when the date of first detection of a pest in the country is known, this is indicated.

Eradication in: when the date of eradication of a pest is known, this is also indicated.

Pest status declared by NPPO: in this PQR version, a new text field has been added to specify the pest status that is officially declared by the NPPO (in the terms of ISPM no. 8). The date of the official notification is included within brackets. When a NPPOs does not communicate 'official pest status' but only makes a general statement, the pest status field is replaced by another field called 'From NPPO' which displays a summary of the pest situation using the standard PQR presence/absence categories.

From CABI Pest (or Disease) Map number x (date): EPPO and CABI have a long-standing exchange of information about pest distributions. In particular, EPPO collaborates with CABI in the preparation of the CABI distribution maps of plant pests and distribution maps of plant diseases. Therefore, when a CABI map exists for the pest concerned, the information that is provided by the CABI map is indicated in this particular field (with the number of the map and its year of publication).

b) Comments

In this part, the EPPO Secretariat can add any comment that is felt useful to better describe the pest distribution in a country. In particular, when an article published in the EPPO Reporting Service provides some additional details, an active link is included. By clicking on this link, you will be able to access and read the EPPO reporting Service issue concerned (this is a new feature of PQR version 5).



Thrips palmi (THRIPL)

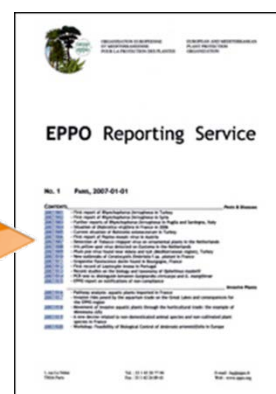
Country	State	Situation
Continent : Africa		
Algeria		Absent, confirmed by survey
Burkina Faso		Absent, unreliable record
Cote d'Ivoire		Present, restricted distribution
Ghana		Absent, unreliable record
Mauritius		Present, no details
Nigeria		Present, no details
Reunion		Present, no details
Sudan		Present, no details
Togo		Absent, unreliable record
Continent : America		
Antigua and Barbuda		Present, no details
Bahamas		Present, few occurrences
Barbados		Present, no details
Bermuda		Absent, unreliable record
Brazil		Present, restricted distribution
Brazil	Goiás	Present, no details
Brazil	Minas Gerais	Present, no details
Brazil	São Paulo	Present, no details
Colombia		Present, no details
Cuba		Present, restricted distribution
Dominica		Present, no details
Dominican Republic		Present, no details
French Guiana		Present, no details
Grenada		Present, widespread
Guadeloupe		Present, widespread
Guatemala		Absent, unreliable record
Guyana		Present, no details
Haiti		Present, widespread
Jamaica		Present, no details

Distribution in Brazil
Current pest situation evaluated by EPPO on the basis of information dated 2008: **Present, restricted distribution**
First recorded in: 1995

Comments
RS 96/091: first report, on aubergines, capsicums, chrysanthemums, potatoes and tomatoes in the State of São Paulo.
RS 2000/091: specifically in Distrito Federal.
RS 2008/070: occurs on glasshouse rose crops in Minas Gerais

References
* Carvalho AR, Bueno VHP, Diniz AJF (2005) Thrips (Thysanoptera) in protected rose crops in Brazil. Bulletin OILB/SROP 28(1), 39-42 (abst.).
----- Minas Gerais
* Monteiro, R.C.; Zucchi, R.A.; Mound, L.A. (1995) Record of Thrips palmi Karny, 1925 (Thysanoptera, Thripidae) in the state of São Paulo.
----- Neighbouring Countries (1):

ISO	Country	State	Situation
CO	Colombia		Present, no details
GF	French Guiana		Present, no details
GY	Guyana		Present, no details
SR	Suriname		Present, no details
VE	Venezuela		Present, no details



c) References

All references that have been used to describe the pest distribution are listed here. They can be bibliographic references, Internet sources and declarations/notifications made by the NPPOs (with a date). Some very short notes may be attached to some references, for example to indicate that it is a first published record, or that it provides detailed names of localities or particular host plants.

References

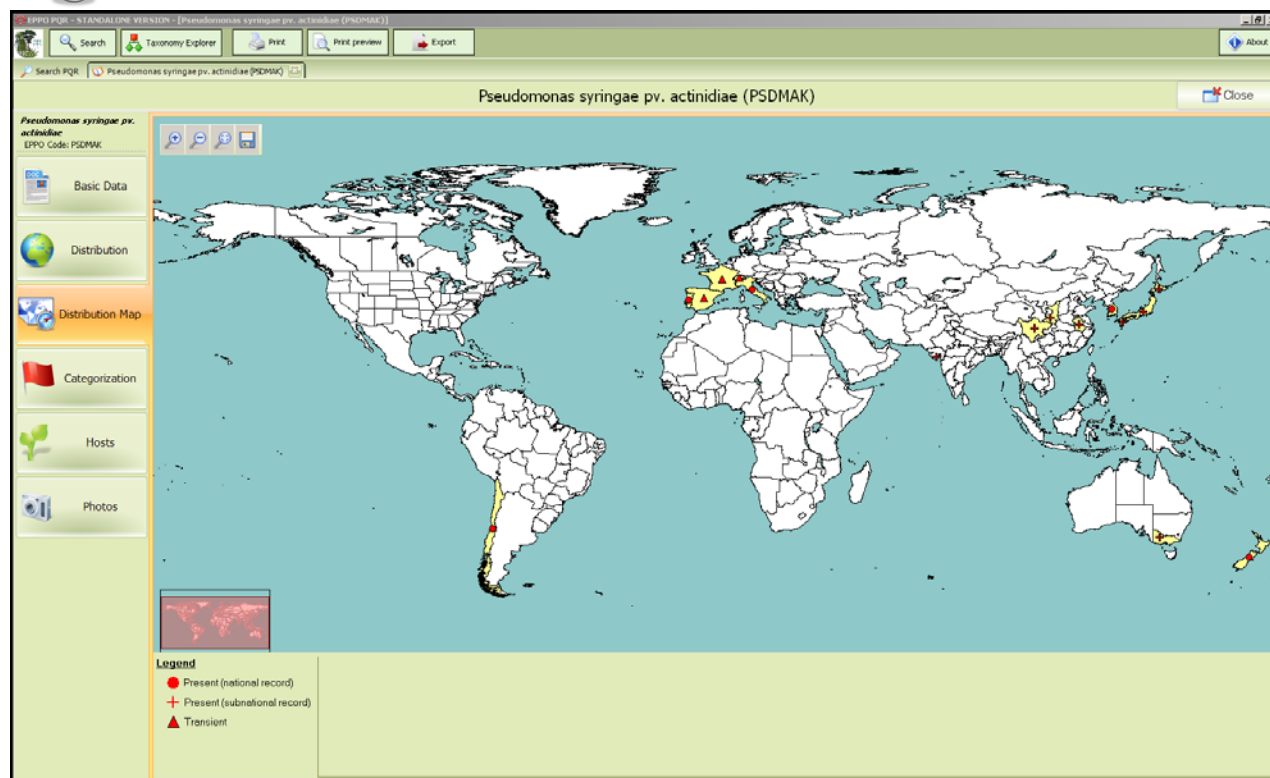
* NPPO of Croatia (1999-09, 2001-02, 2008-12).

* Zanik K, Kacic S, Katalinic M (2001) [Tobacco whitefly Bemisia tabaci (Gennadius, 1989), (Hom.: Aleyrodidae) in Croatia]. Entomologia Croatica (1-2), 51-63 (in Croatian).
----- First record in 2000.

* Zanik K, Ceniz JL, Kacic S, Katalinic M (2005) Current status of Bemisia tabaci in coastal Croatia. Phytoparasitica 33(1), 60-64.
----- Results indicated a predominance of the Q biotype.



View the distribution map of a pest



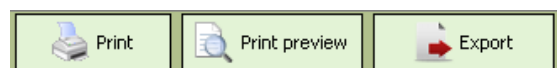
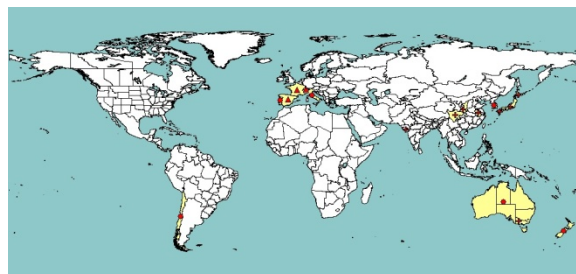
PQR now contains dynamic maps that are automatically generated. As a consequence, when new (or revised) geographical data is added into PQR, the map is automatically updated.



With the magnifying glass, you can zoom in, zoom out or return to full screen.



By clicking on the floppy disk icon, you can save the **map as an image without legend or title (jpg)**. This type of image can then be easily transferred into a Word document or a PowerPoint presentation.



By using the tools at the top of your screen you can print, preview and export the **map together with its title and legend** in different formats (pdf, Word, html, Excel, jpeg).

Legend

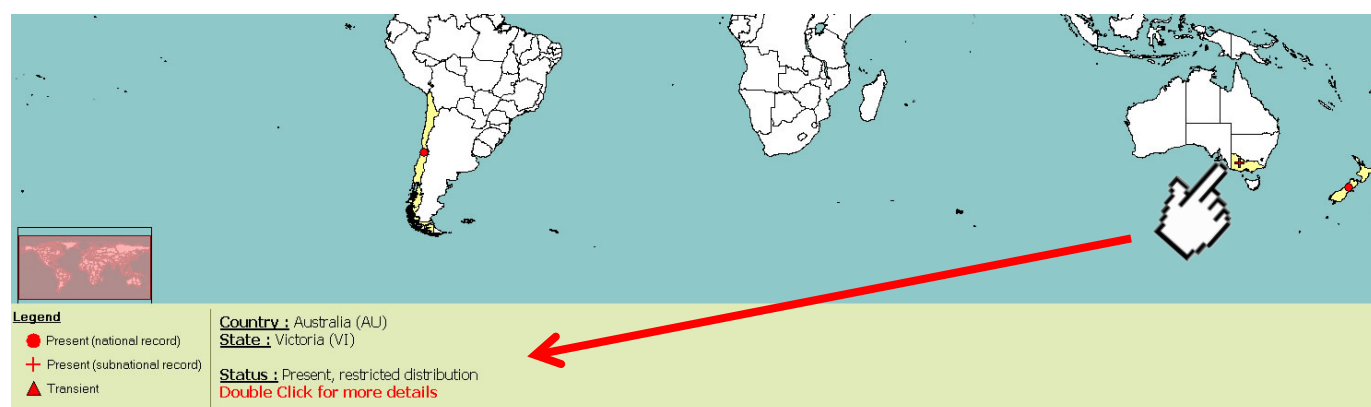
- Present (national record)
- + Present (subnational record)
- ▲ Transient

On these world maps, only the records of presence and transience are displayed. The presence of a pest in a country is indicated by a red dot and a yellow background.

For large countries (e.g. Australia, Brazil, Canada, China, India, Russia, USA) or countries which have distant islands or overseas territories (e.g. Italy, France, Japan, Spain, Portugal), the presence of a pest in these subnational units is represented by a red cross and a yellow background for the territory concerned.

Finally, when a pest is considered transient in a country (not expected to establish because eradication measures are being implemented), this is indicated by a red triangle.

When hovering over a country a small hand pointer appears where a presence record is shown (red dot, cross or triangle), and at the same time the country name and status appear near the legend at the bottom of the screen. As illustrated below, you can double click to obtain all country distribution details.



Distribution in Australia

Current pest situation evaluated by EPPO on the basis of information dated 2011: **Present, restricted distribution**

Pest status declared by NPPQ: Present: only in some areas (2011-07)

Comments

RS 2011/130: detected in 2 properties in south-east Victoria during surveillance activities. Studies have also confirmed that a stored sample from an earlier survey conducted in Western Australia in 1992 was infected by *P. syringae* pv. *actinidiae* (but the current status of the disease in this state is not known).

References

* IPPC website. Pest Report from Australia (2011-07-12).

[https://www.ippc.int/index.php?id=1110879=72\[showUId\]=217068=pestreport=0](https://www.ippc.int/index.php?id=1110879=72[showUId]=217068=pestreport=0)



View the categorization of a pest

EPPO PQR - STANDALONE VERSION - [Erwinia amylovora (ERWIAM)]

Search Taxonomy Explorer Print Print preview Export About

Search PQR Erwinia amylovora(ERWIAM)

Erwinia amylovora (ERWIAM) Close

Erwinia amylovora
EPPO Code: ERWIAM

Basic Data

Distribution

Distribution Map

Categorization

Hosts

Host Commodities

Photos

Country	qlistlabel	Year addition	Year transfer	Year deletion
RPPO/EU				
APPPC	A2 list	1993	0	0
COSAVE	A1 list	1992	0	0
EPPO	A2 list	1975	0	0
EU	Annex II/A2	1992	0	0
EU	Annex II/B	1992	0	0
IAPSC	A2 list	1989	0	0
Africa				
East Africa	A1 list	2001	0	0
Southern Africa	A1 list	2001	0	0
America				
Argentina	A1 list	1995	0	0
Brazil	A1 list	1992	0	0
Chile	A1 list	1992	0	0
Paraguay	A1 list	1992	0	0
Uruguay	A1 list	1992	0	0
Asia				
China	A1 list	1993	0	0
Kazakhstan	Quarantine pest	2008	0	0
Europe				
Azerbaijan	A1 list	2007	0	0
Belarus	Quarantine pest	1994	0	0
Moldova	A1 list	2006	0	0
Russia	A1 list	2003	0	0
Turkey	A2 list	2007	0	0
Ukraine	A2 list	2010	0	0

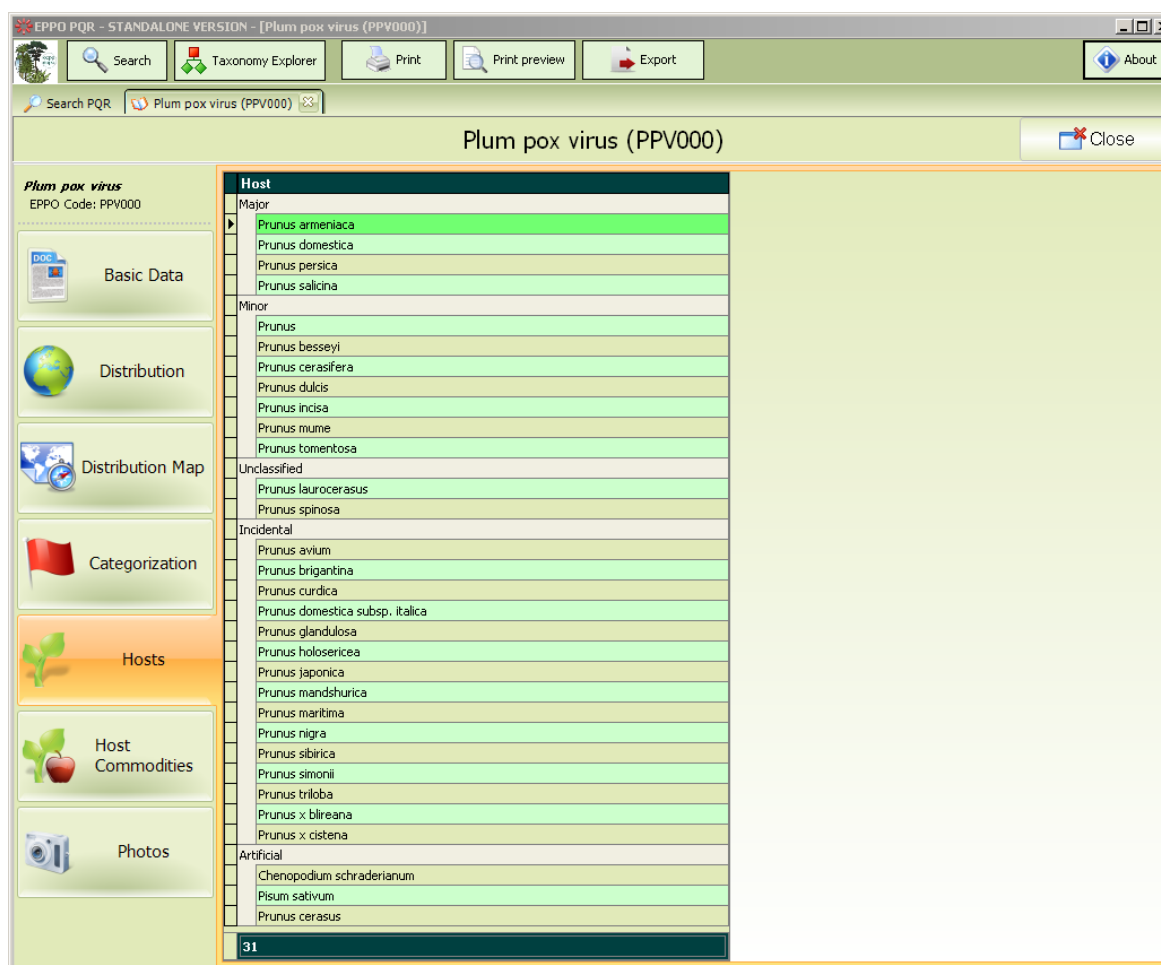
21

This section provides information on the 'quarantine status' of a pest in different countries, including the EU (i.e. if the pest is included on the EU Annexes of the Council Directive 2000/29). It must be noted that the Secretariat is still in the process of incorporating all quarantine lists that have been sent to EPPO, and it should be stressed that this will only represent a small part of the information that is potentially available around the world. For countries, the indicated date corresponds to the publication date of the quarantine lists.

When appropriate, the status of a pest in the different EPPO lists (EPPO A1 and A2 Lists of pests recommended for regulation as quarantine pests, Alert List, Action List) is also mentioned with the date of first addition, and eventually of transfer and deletion. For the other RPPOs, EPPO has compiled lists of pests recommended for regulation whenever these were available.



View the list of host plants for a selected pest (excluding invasive alien plants)



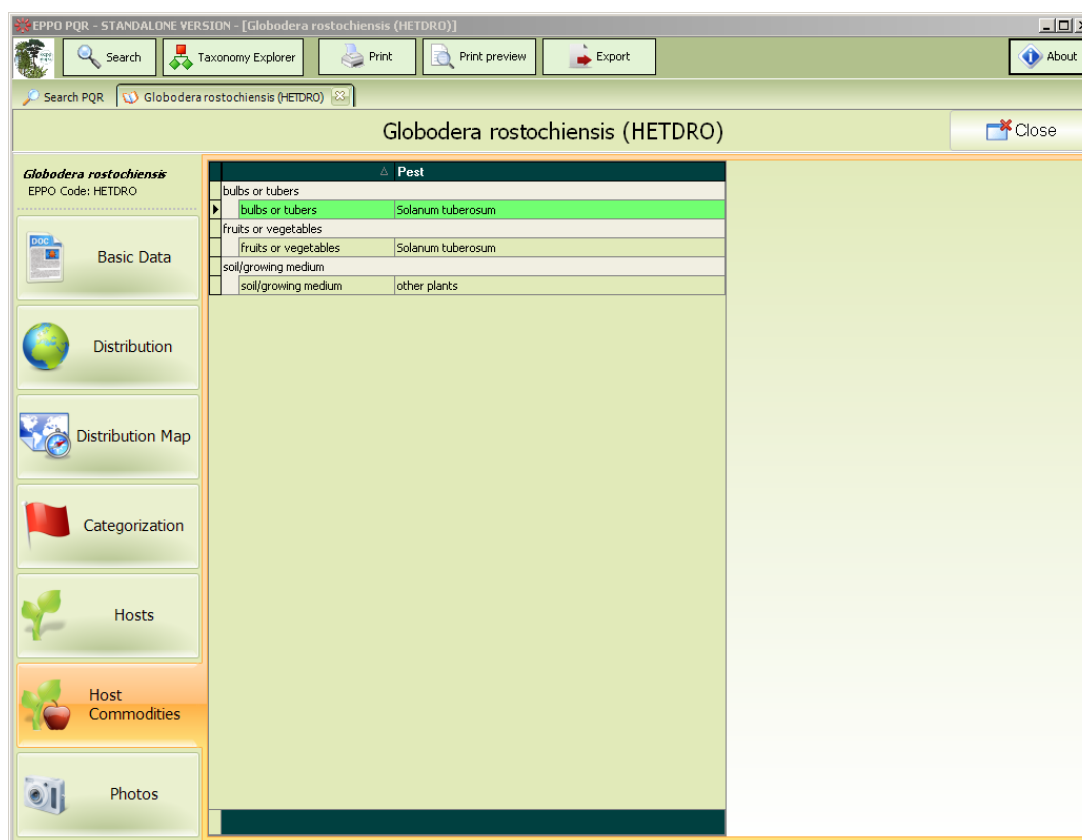
The pest/host plant combinations are classed in eight categories:

- major host
- minor host
- alternate host (when two unrelated host species feature in the life cycle of a pest)
- unclassified host (if no details are available)
- incidental hosts (when a pest is found on a plant but it is not known whether it can complete its life cycle on it)
- wild or weed hosts
- indicator hosts or artificial hosts

Major hosts are defined as precisely as possible, usually at the species level. Minor hosts are frequently whole genera, but like the other host categories they may also be plant families, or non-taxonomic groupings of plants, such as 'woody plants'. The lists of hosts for the current pest are arranged with individual species first, followed by genera and higher taxa, and finally any non-taxonomic groups (e.g. woody plants). Similarly, the list of pests which may attack the current host plant contains first the specific pests of that host, then pests of the genus, then polyphagous pests. In these lists the name of the taxon or other host group is shown in brackets after the pest name. It is has to be underlined that unlike geographical records, the EPPO Secretariat does not attempt to document host records (no references/sources are given).



View the list of host commodities liable to carry a selected pest (excluding invasive alien plants)



Globodera rostochiensis (HETDRO)	
Pest	
bulbs or tubers	Solanum tuberosum
fruits or vegetables	Solanum tuberosum
soil/growing medium	other plants

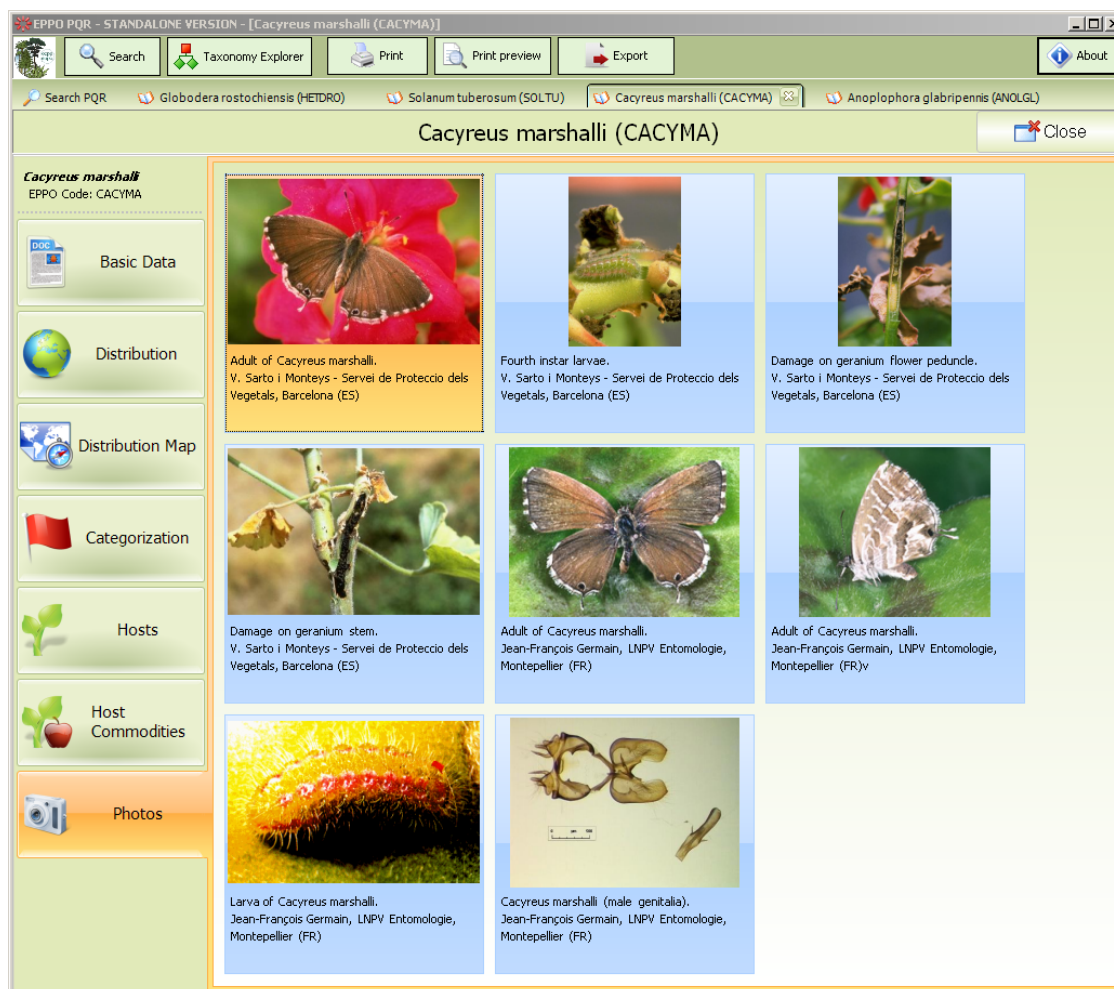
PQR distinguishes between the host plants of a quarantine pest (i.e. the plants which it attacks and damages in its area of distribution) and the plant commodities (plants, fruits, seeds, cut flowers) liable to carry a quarantine pest in international trade. While the host information mainly relates to species, much of the commodity information relates to genera.

The host information is mainly derived from the EPPO datasheets on quarantine pests, while the commodity information comes from the EPPO pest-specific phytosanitary requirements (EPPO Standards PM2 - now stopped but used in the early development of the database), Annex IV of the EU Directive and results of EPPO Pest Risk Analyses. There is relatively little validated information on the hosts of pests which are of significance only to RPOs other than EPPO and the EU, and no commodity information for these pests. **In consequence the commodity options are only available for the EPPO/EU listed pests.**

Therefore for the EPPO/EU listed pests, when clicking on the 'host commodity' button, PQR will display a list of commodities which are liable to carry the selected pest in trade (see example above).



View pictures of a pest



EPPO PQR - STANDALONE VERSION - [Cacyreus marshalli (CACYMA)]

Search PQR | Globodera rostochiensis (HETDRO) | Solanum tuberosum (SOLTU) | Cacyreus marshalli (CACYMA) | Anoplophora glabripennis (ANOLGL)

Cacyreus marshalli (CACYMA) [Close]

Cacyreus marshalli
EPPO Code: CACYMA

Basic Data | Distribution | Distribution Map | Categorization | Hosts | Host Commodities | Photos

Adult of Cacyreus marshalli.
V. Sarto i Monteys - Servei de Protecció dels Vegetals, Barcelona (ES)

Fourth instar larvae.
V. Sarto i Monteys - Servei de Protecció dels Vegetals, Barcelona (ES)

Damage on geranium flower peduncle.
V. Sarto i Monteys - Servei de Protecció dels Vegetals, Barcelona (ES)

Damage on geranium stem.
V. Sarto i Monteys - Servei de Protecció dels Vegetals, Barcelona (ES)

Adult of Cacyreus marshalli.
Jean-François Germain, LNPV Entomologie, Montpellier (FR)

Adult of Cacyreus marshalli.
Jean-François Germain, LNPV Entomologie, Montpellier (FR)

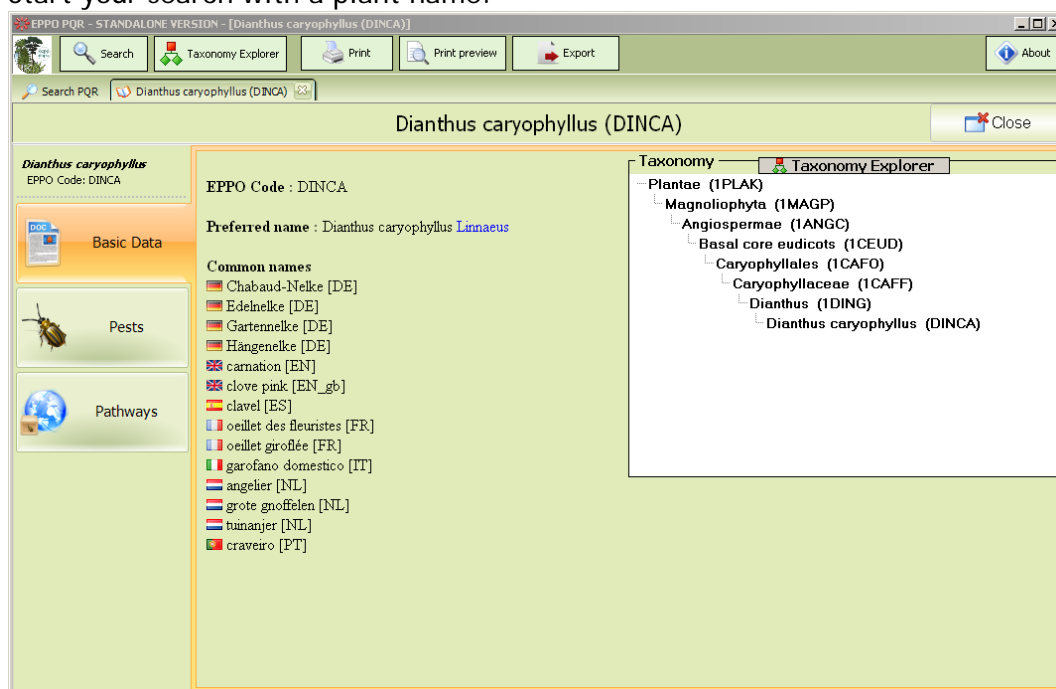
Larva of Cacyreus marshalli.
Jean-François Germain, LNPV Entomologie, Montpellier (FR)

Cacyreus marshalli (male genitalia).
Jean-François Germain, LNPV Entomologie, Montpellier (FR)

Whenever pictures are available, they can now be viewed together with their legends in PQR (a new feature of the database). If you wish, you can enlarge them by clicking twice on the small image. All pictures shown in PQR are extracted from the EPPO Gallery (<http://photos.eppo.org/>). In PQR, images are small and highly compressed, therefore use the EPPO Gallery if you need a better resolution. Please note that all pictures included in the EPPO Gallery can be used for educational purposes only. For publication in journals, books or magazines, permission should be obtained from the original photographers and copy in EPPO (hq@epo.int).

Searches related to a plant (which may be a host or serve as a pathway for pests)

Start your search with a plant name.



EPPO PQR - STANDALONE VERSION - [Dianthus caryophyllus (DINCA)]

Search PQR | Taxonomy Explorer | Print | Print preview | Export | About

Dianthus caryophyllus (DINCA)

Dianthus caryophyllus
EPPO Code: DINCA

Basic Data

EPPO Code : DINCA

Preferred name : Dianthus caryophyllus **Linnaeus**

Common names

- Chabaud-Nelke [DE]
- Edelnelke [DE]
- Gartennelke [DE]
- Hängenelke [DE]
- carnation [EN]
- clove pink [EN_gb]
- clavel [ES]
- oeillet des fleuristes [FR]
- oeillet griffée [FR]
- garofano domestico [IT]
- angelier [NL]
- grote gnoffelen [NL]
- tuinanjier [NL]
- craveiro [PT]

Taxonomy

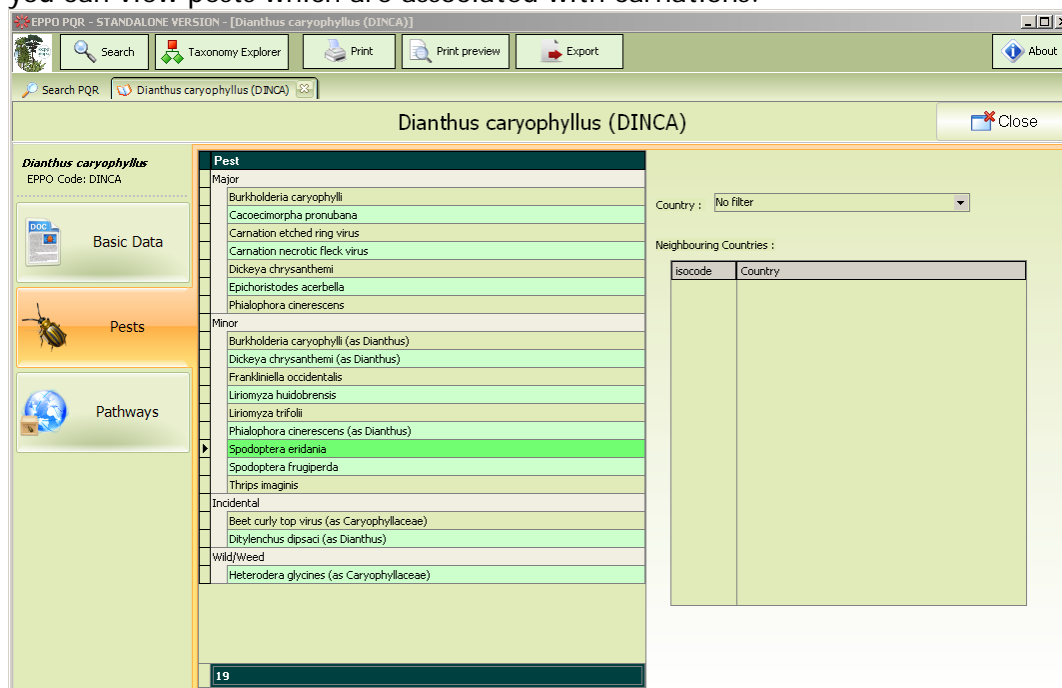
- Plantae (1PLAK)
 - Magnoliophyta (1MAGP)
 - Angiospermae (1ANGC)
 - Basal core eudicots (1CEUD)
 - Caryophyllales (1CAFO)
 - Caryophyllaceae (1CAFF)
 - Dianthus (1DING)
 - Dianthus caryophyllus (DINCA)

PQR will display basic information about the plant (as for any type of organism) and you will be able to view: 1) a list of pests for which the selected plant species is a host; 2) a list of pests associated with the different types of plant commodities.

List of pests hosted by the selected plant



As in the database, some of the pest/host relationships may have been established at the genus or family level, this is indicated in brackets (e.g. 'as Dianthus' - 'as Caryophyllaceae'). In this example, you can view pests which are associated with carnations.



EPPO PQR - STANDALONE VERSION - [Dianthus caryophyllus (DINCA)]

Search PQR | Taxonomy Explorer | Print | Print preview | Export | About

Dianthus caryophyllus (DINCA)

Dianthus caryophyllus
EPPO Code: DINCA

Basic Data

Pests

Pathways

Pest

Major

- Burkholderia caryophylli
- Cacocimorpha pronubana
- Carnation etched ring virus
- Carnation necrotic fleck virus
- Dickeya chrysanthemi
- Epichoristodes acerbellae
- Phialophora cinerescens

Minor

- Burkholderia caryophylli (as Dianthus)
- Dickeya chrysanthemi (as Dianthus)
- Frankliniella occidentalis
- Liriomyza huidobrensis
- Liriomyza trifolii
- Phialophora cinerescens (as Dianthus)
- Spodoptera eridania
- Spodoptera frugiperda
- Thrips imago

Incidental

- Beet curly top virus (as Caryophyllaceae)
- Ditylenchus dipsaci (as Dianthus)

Wild/Weed

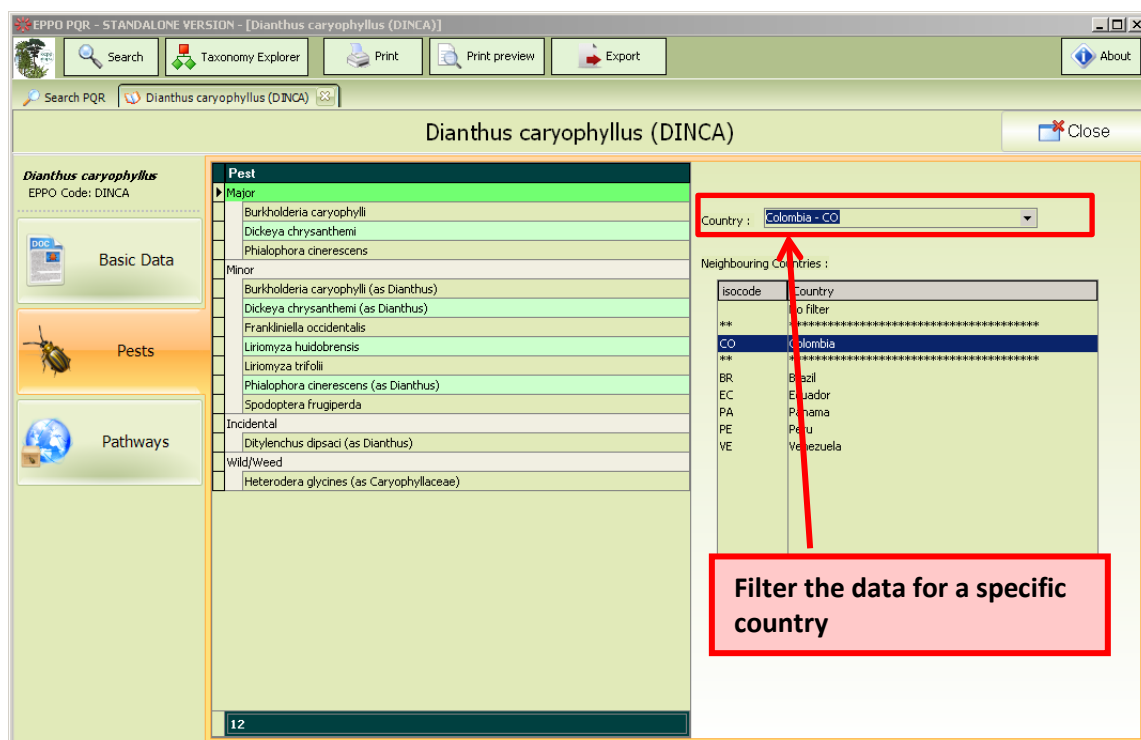
- Heterodera glycines (as Caryophyllaceae)

Country : No filter

Neighbouring Countries :

Isocode	Country
---------	---------

19



Dianthus caryophyllus (DINCA)

Country : Colombia - CO

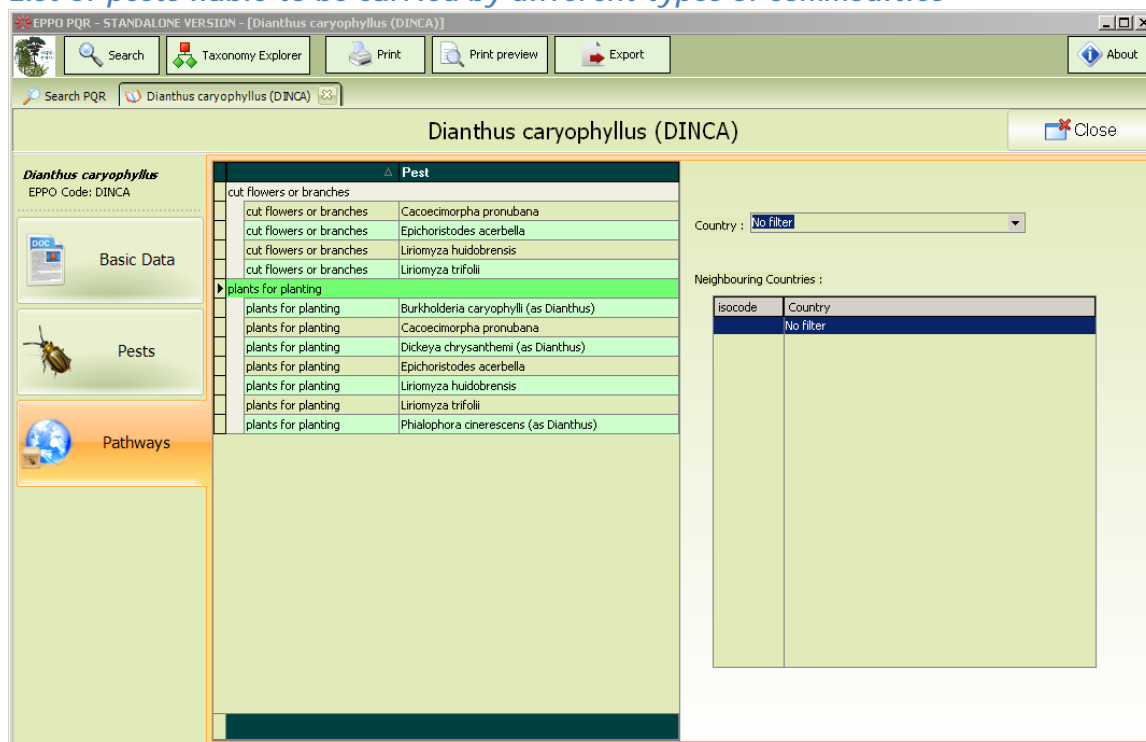
Neighbouring Countries :

isocode	Country
**	No filter
CO	Colombia
BR	Brazil
EC	Ecuador
PA	Panama
PE	Peru
VE	Venezuela

Filter the data for a specific country

You can filter the list of pests by selecting a country. In this example, PQR shows a list of pests which are associated with *Dianthus caryophyllus* and which occur in Colombia.

List of pests liable to be carried by different types of commodities



Dianthus caryophyllus (DINCA)

Country : No filter

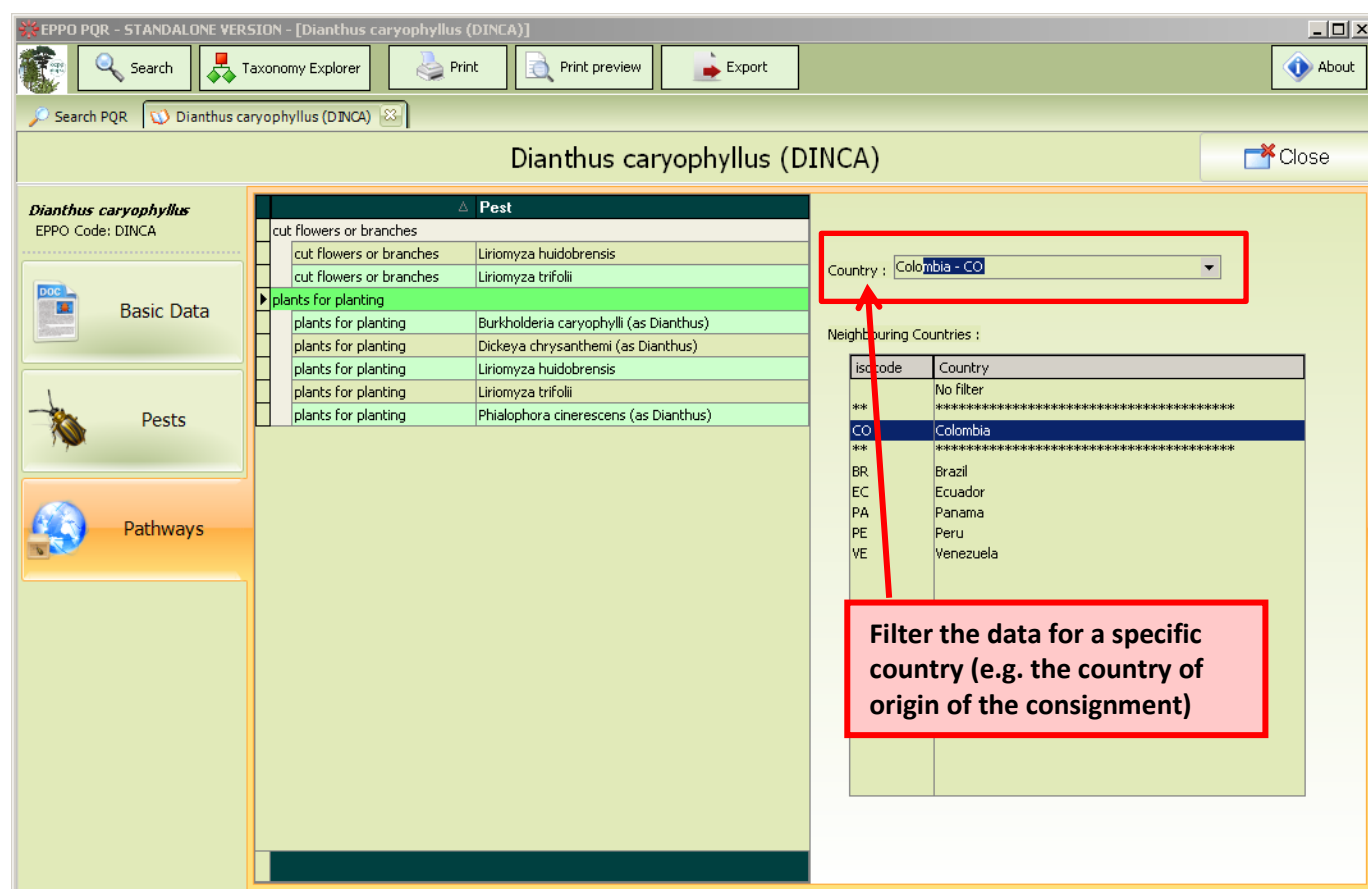
Neighbouring Countries :

isocode	Country
	No filter

The 'pathway' button will display a list of commodities (e.g. plants for planting, cut flowers, bulbs and tubers, wood) and their associated pests (as explained earlier this is **only available for pests which are listed by EPPO/EU** and excludes invasive alien plants). In searching for pests liable to be

carried by a commodity, the commodity can be defined at the genus or species level, and the system will automatically search upwards for relevant broader taxonomic categories (this is indicated in our example by 'as *Dianthus*').

This list can be restricted to a country (for example the country of origin of an imported consignment): select a country in the filter box to obtain a list of commodities with their associated pests and which are known to occur in the selected country. In our example below, PQR displays a list of pests which may be associated with imports of cut flowers and plants for planting of carnations from Colombia. However, it should be noted that these associations between regulated pests and plant commodities are resulting from expert judgement and are not providing exhaustive lists of all possible pests liable to be carried by the commodity concerned (which could be obtained from a pathway PRA).



EPPO PQR - STANDALONE VERSION - [Dianthus caryophyllus (DINCA)]

Search PQR | Taxonomy Explorer | Print | Print preview | Export | About

Dianthus caryophyllus (DINCA) [Close]

Dianthus caryophyllus
EPPO Code: DINCA

Basic Data | Pests | Pathways

Pest	
cut flowers or branches	
cut flowers or branches	<i>Liriomyza huidobrensis</i>
cut flowers or branches	<i>Liriomyza trifolii</i>
plants for planting	
plants for planting	<i>Burkholderia caryophylli</i> (as <i>Dianthus</i>)
plants for planting	<i>Dickeya chrysanthemi</i> (as <i>Dianthus</i>)
plants for planting	<i>Liriomyza huidobrensis</i>
plants for planting	<i>Liriomyza trifolii</i>
plants for planting	<i>Phialophora cinerescens</i> (as <i>Dianthus</i>)

Country : Colombia - CO

Neighbouring Countries :

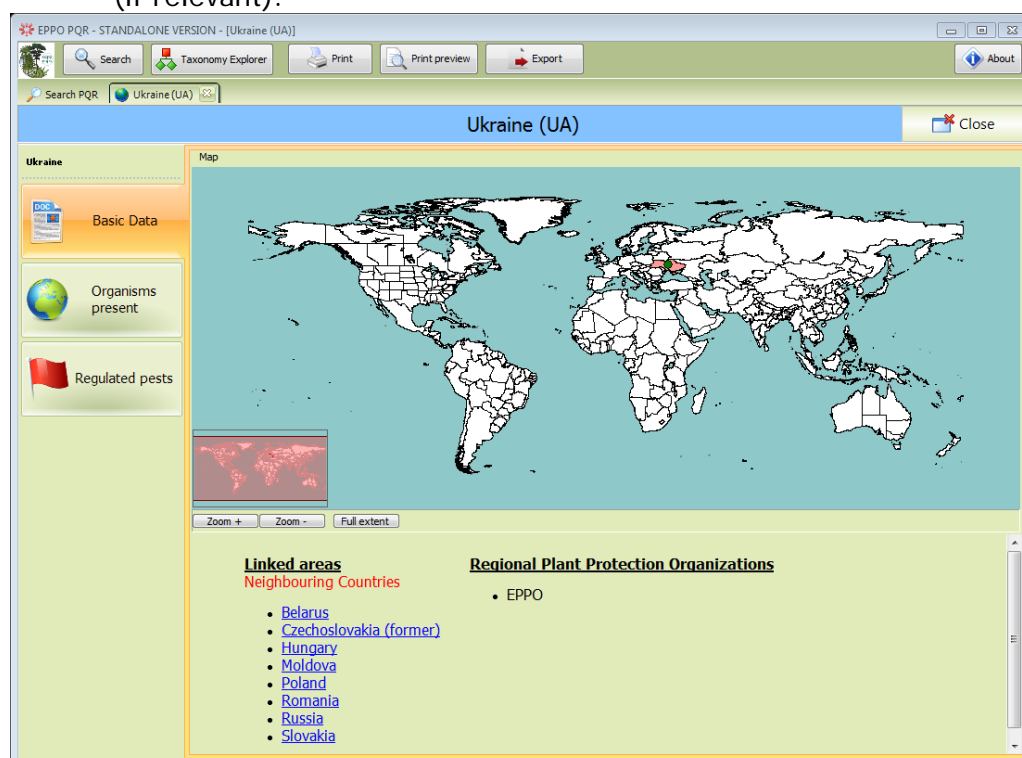
iscode	Country
**	No Filter
**	*****
CO	Colombia
**	*****
BR	Brazil
EC	Ecuador
PA	Panama
PE	Peru
VE	Venezuela

Filter the data for a specific country (e.g. the country of origin of the consignment)

PQR data when searching for countries

When you have started your search with a country and selected one, a specific screen appears displaying the 'basic data' that is attached to the selected country.

- 'Basic Data': the name of the country appears on a blue background at the top of the screen. The geographical position of the country is highlighted in red on the world map. Below the map, neighbouring countries are listed, as well as the RPPO of which the country is a member (if relevant).



You may zoom in and out the map by clicking on the buttons 'Zoom +' and 'Zoom -' at the bottom of the map. Clicking 'Full extent' will allow you to go back to the original world map.

When clicking on the name of a neighbouring country, this country will be highlighted in red and yellow for a few seconds.

- 'Organisms present': this button will display a list of pests of phytosanitary concern which are present in the country selected.

This list is based on information provided by the NPPO and data collected by the EPPO Secretariat. Note that if the country has specifically notified the absence of a pest from its territory (or if the pest was previously reported from the country), this pest will also be included. The situation of all pests is given in the table. By default, the list is provided by alphabetical order of pest name. You may change this order by clicking on the title of the column and you can also filter this list by clicking on the arrow.

EPPO PQR - STANDARD VERSION - [Ukraine (UA)]

Search Taxonomy Explorer Print Print preview Export

Search PQR Ukraine (UA) Slovakia (SK) Poland (PL) Germany (DE) Hungary (HU)

Ukraine (UA)

Ukraine

Basic Data

Organisms present

Regulated pests

Organism	State	Situation
Acoelopsis assectella		Present, no details
Acaropsis repens		Present, restricted distribution
Acalypha lycoposperma		Present, no details
Adoxophyes orana		Present, no details
Agrobacterium tumefaciens		Present, no details
Agrotis segetum		Present, no details
Alnus altilis		Present, no details
Alnus altilis		Present, no details
Alnus altilis		Present, no details
Ambrosia artemisiifolia		Present, restricted distribution
Ambrosia trifida		Present, restricted distribution
Amelanchier spicata		Present, no details
Anarsia lineatella		Present, restricted distribution
Anguina agrostis		Present, no details
Anguina tritici		Present, no details
Anthonomus pomorum		Present, no details
Aphelenchoides besseyi		Present, restricted distribution
Aphelenchoides fragariae		Present, no details
Aphelenchoides ritzemabosi		Present, no details
Apple chlorotic leaf spot virus		Present, no details
Apple mosaic virus		Present, no details
Apple stem grooving virus		Present, no details
Arabidopsis mosaic virus		Present, no details
Autographa gamma		Present, no details
Azalia filicoides		Present, no details
Barley stripe mosaic virus		Present, restricted distribution
Barley yellow mosaic virus		Present, no details
Bean yellow mosaic virus		Present, no details
Beet necrotic yellow vein virus		Present, no details
Bemisia tabaci		Present, restricted distribution
Bidens frondosa		Present, no details
Bothynoderes punctiventris		Present, no details

Distribution in Ambrosia artemisiifolia

Current pest situation evaluated by EPPO on the basis of information dated 2010: **Present, restricted distribution**

From NPPO: Present, restricted distribution

Comments

The annual report for 1996 gives the following distribution by province:

West: Chernovtsy, Ivano-Frankovsk, Khmel'nitskii, L'viv, Rovno, Zakarpatt'e

Centre: Kharkass, Kiev, Kirovograd, Poltava, Sumy, Vinnitsa

South: Kherson, Krym, Nikolaev, Odessa, Zaporozh'e

East: Dnepropetrovsk, Donetsk, Khar'kov, Lugansk

References

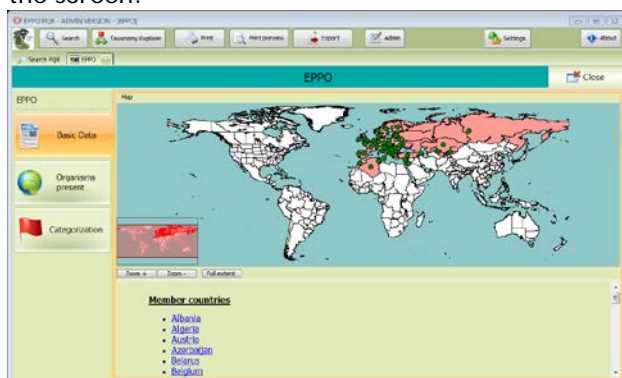
* Brunel S, Schrader G, Brundu G, Fried G (2010) Emerging invasive alien plants for the Mediterranean Basin. Bulletin OEPP/EPPO Bulletin 40(2), 219-238.

- The list also indicates the year of addition of the pest to the list (the date can also correspond to the year of publication of the national quarantine lists that have been used to generate this data). By clicking on the name of a pest, you will open a new window containing all information on this organism.

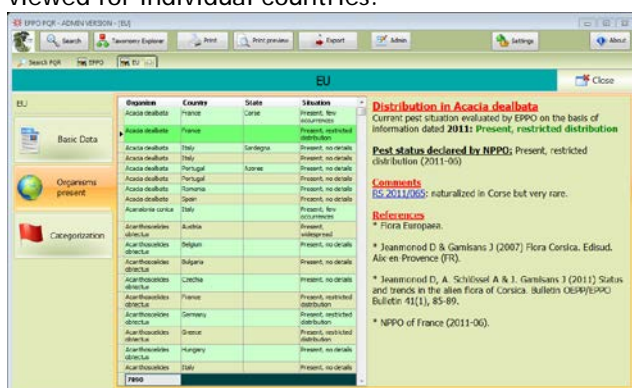
PQR data when searching for RPPO/EU

When you have started your search with a RPPO (or the EU), a specific screen appears displaying the 'basic data' that is attached to the selected RPPO (or to the EU).

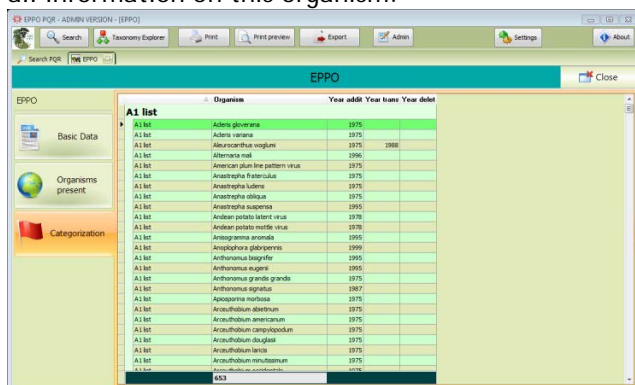
- 'Basic Data': the name of the RPPO appears on a blue background at the top of the screen. The member countries of the RPPO (or of the EU) are highlighted in red on the world map and listed at the bottom of the screen.



- 'Organisms present': this button will display a list of pests which are present in the region considered (EPPO, NAPPO etc.) and in the EU territory. All details about the geographical distribution can also be viewed for individual countries.


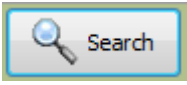
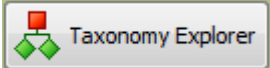


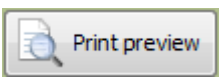


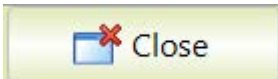


- 'Categorization': this button will display a list of pests which are recommended for regulation by the RPPO (to its member countries). For the EU, the list contains the pests of the Annexes of the EU Council Directive 2000/29. By default, pests are listed in alphabetical order of their names, first for the A1 List (pests absent of the region), then for the A2 List (pests locally present in the region), and any other relevant lists (e.g. Alert List, etc.). You may sort the list by clicking on the title of the column and use filters by clicking on the arrow. For the EPPO A1 and A2 Lists, it is also indicated when the pest was eventually transferred or deleted. By clicking on the name of a pest, you will open a new window with all information on this organism.





Buttons

These buttons are available at the top on each page.

	To open your Internet browser and go to EPPO website.
	This button allows you to reach the search interface (see page ‘Search PQR’ for details)
	This button is available at the top of PQR screen, as well as in the ‘Basic Data’ menu for a given pest (see page ‘Taxonomy Explorer’ for details)
	This button allows you to personalize some functions of PQR: - automatic updates (to enable or disable automatic updates) - use a proxy (for IT officers)
	This allows you to print the information that is currently displayed on your screen
	This allows you to visualize how the information currently being displayed on your screen will look like when printed
	This allows you to export data from the screen that you are currently displaying in different formats (pdf, word, html, excel, jpeg).
	This provides general information on EPPO and PQR (including how to cite PQR, the version number of the database and its last update)
	To close the current PQR screen (this button is available on the right side of the screen)

Buttons available on the different tabs that are opened for each query.

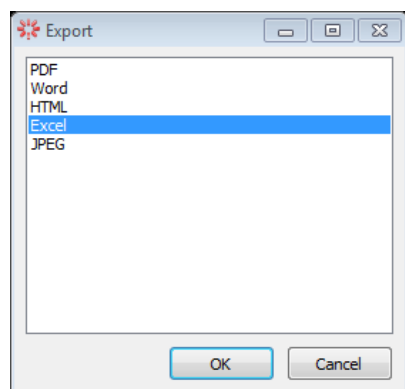
	To close the screen that is currently being displayed (this button is available on the top of PQR screen)
	When numerous tabs are opened, these 2 buttons will appear on the right side of the page. They allow you to scroll from one tab to the previous or the next one.

Export data from PQR

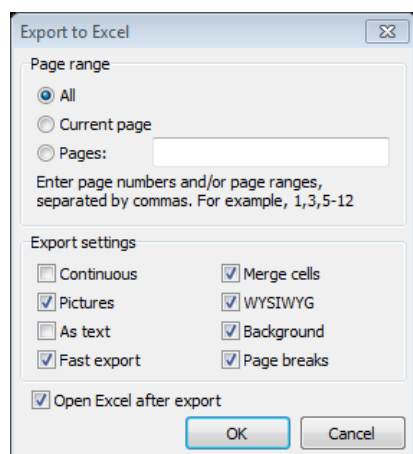


If you wish to use PQR data in other software, click on the 'Export' button. This will allow you to export the data that is displayed on the active PQR screen (e.g. a list of countries where a pest is present, a list of host plants, a map). You may export data in the following format: PDF, Word (text file as .rtf file), HTML, Excel, JPEG (image).

Select the format in the list, and click OK.



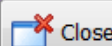
A new window will appear with different options that are specific to the format you have selected.



You are recommended to leave these options as they are proposed to you by default, unless your export files need to have particular characteristics.

Taxonomy Explorer

Although PQR is not a taxonomic database, organisms are broadly organized according to a taxonomic hierarchy. Please note that not all taxonomic ranks are present in PQR (e.g. subclasses, tribes, subtribes), only the main taxonomic levels are represented. All data on the taxonomic position of organisms is directly extracted from the EPPO Plant Protection Thesaurus (this is a new feature of PQR) to ensure full consistency between the two databases.

Taxonomy Explorer				
Name	Code	Level		
Root				
Animalia	1ANIMK	Kingdom		
Archezoa	1ARCHK	Kingdom		
Bacteria	1BACTK	Kingdom		
Chromista	1CHROK	Kingdom		
Fungi	1FUNGK	Kingdom		
Protozoa	1PROTK	Kingdom		
Plantae	1PLAK	Kingdom		
Viruses and viroids	1VIRUK	Kingdom		

Clicking (single click!) on a given rank will show the subordinate levels. Double clicking on a given rank will hide the subordinate levels. You may explore the taxonomy up to the species level. Clicking on 'View...' will lead you to the specific page of the organism (for higher taxonomic ranks, only Basic Data are provided).